

FOODS OF NESTING BALD EAGLES IN LOUISIANA

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ABSTRACT — During the summer of 1979, remains of 243 vertebrates comprising 31 species were collected from 10 nests that had fledged young during the previous spring to determine the food habits of nesting Bald Eagles (*Haliaeetus leucocephalus*) in Louisiana. American Coots (*Fulica americana*) and freshwater catfish (*Ictalurus* spp.) were the most abundant species, but fish probably constituted a greater portion of the diet than results indicate, due to more complete digestibility of piscian skeletons.

The Bald Eagle (*Haliaeetus leucocephalus*) nests in swamps of southcentral and southeastern Louisiana. Portions of this habitat are being lost or altered due to drainage, channelization conversion of land to agriculture, and industrial development (Yancey 1970). Loss of swamp habitat may harm nesting eagles by reducing the availability or abundance of prey. Support for this hypothesis is provided by McEwan (1977) who found that Bald Eagles in Florida rely primarily on fish and wetland birds for food. Foods of nesting Bald Eagles in Louisiana have not been previously documented.

STUDY AREA AND METHODS

Fieldwork was conducted in coastal southeastern and south-central Louisiana, including Terrebone, Jefferson, St. Charles, St. Tammany, and Assumption Parishes. Climate is subtropical maritime. Wetlands of 0-2 m elevation predominate; relief is provided by levees and spoilbanks. Much of the region consists of permanently or annually flooded baldcypress (*Taxodium distichum*) - tupelogum (*Nyssa aquatica*) forests. Dominant land uses include gas and oil production and industrial development, as well as hunting, fishing and trapping. Area vegetation and other characteristics are further described by Bahr et. al. (1983) and Chabreck and Condrey (1979).

Bald Eagle nest locations were determined in 1977 and 1978 by interviews with private citizens and by using helicopter surveys. In June and July 1979, immediately following fledging of young and seasonal departure of parents, prey remains were collected from 9 nests. Additional remains were collected in July from a nest after it was downed by a hurricane. To ensure as much as possible that prey remains were those left by 1979 nesters, we collected only those remains on or near the nest surface immediately after eagles vacated the nest, prior to possible nest use by other species.

RESULTS

Prey species of nesting Bald Eagles were determined from remains found in 10 nests during the summer of 1979. We collected remains of 243 vertebrates, including 4 classes and 31 species (Table 1). Birds comprised the highest percentage of prey animals (42.4%), followed by fish (41.5%), mammals (15.7%), and a reptile (0.4%). American Coots (*Fulica americana*) comprised 40 (47.6%), of the 103

birds, while freshwater catfish (*Ictalurus* sup.) accounted for 53 (52%) of 101 fish. Muskrat (*Ondatra zibethicus*) and Nutria (*Myocastor coypus*) combined comprised 82.2% of mammals, and the reptile remains were those of a Mud Turtle (*Kinosternon subrubrum*).

DISCUSSION

Remains of 31 vertebrate prey species may support claims that Bald Eagles are opportunistic feeders (Retfalvi 1970; Todd et. al. 1982; Fielder 1982). However, American Coots and catfish made up nearly 42% of prey animals, indicating that a preference for these species may exist. Our findings agree with those of McEwan (1977), who found that American Coots and catfish comprised the major portions of the diet of Bald Eagles in Florida. Fielder (1982) reported that American Coots were the major prey animal of Bald Eagles at a study site in Washington, but concluded that availability of prey dictated usage. Haywood and Ohmart (1986) found in Arizona that, while catfish and other benthic-feeding fish comprised the majority of prey, American Coots were the major avian prey of Bald Eagles. Benthic fish are common prey probably because of their high vulnerability to aerial predators (Todd et. al. 1982). Bald Eagle consumption of benthic fish, American Coots, and dabbling waterfowl makes obvious the importance of shallow wetlands within foraging distance of nest sites. Because of this importance, proposals to alter such wetlands should be carefully studied.

A bias toward nonfish prey species probably exists in our study, because fish skeletal parts can be more completely digested than those of other vertebrates (Todd et. al. 1982). For instance, although we observed over 20 Gizzard Shad (*Dorosoma cepedianum*) brought to nests and consumed, the remains of only 2 were recovered.

SPECIES	CLASS MAMMALIA		CLASS AVES		CLASS OSTEICHTHYES		CLASS REPTILIA	
	No.	%	SPECIES	No.	%	SPECIES	No.	%
<i>Rallus elegans</i> (King Rail)				1	0.4			
<i>Larus delawarensis</i> (Ring-billed Gull)				1	0.4			
Subtotals				103	42.4			

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